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USACE RAPID RESPONSE
Sauget Area 1
Human Health Risk Assessment
June 2001

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1. Data from the E&E report identify contaminants (e.g. PCBs, dioxins, metals) as percentages of the waste soil or higher than 10,000 ppm (it should be noted the levels of contamination would be even higher if the assessment included the free product in the existing monitoring wells and drummed waste). The results of the "Construction Worker/Fill Area: Subsurface Waste" exposure scenario, based upon the E&E data, identify the hazard index range of 5.2 to 167 for Sites G, H, I and L. Despite these facts, ENSR describes the results of the construction worker exposure scenario as a "Supplemental" assessment "pursuant to comments received from USEPA." with only a half page discussion in the summary and conclusions. ENSR's incidental presentation of these findings is one reason the document cannot be approved.

2. ENSR omitted the fill area evaluation by assuming institutional controls are sufficient to mitigate health and safety concerns posed by the sites. Through this logic, ENSR rationalized the exclusion of the actual sites from **any further** assessment. The evaluation of the fill areas, based on E&E data, is necessary to assess the adequacy of proposed institutional controls.

3. Without presenting the hazards of the actual sites, there is no meaningful criteria by which to evaluate the effectiveness of the remedial alternatives, as there is no hazard to be mitigated. With the current presentation of the sites' hazards, the remedial alternatives range from "a little unnecessary" for institutional controls to "a lot unnecessary" for anything more than institutional controls, rather than "a little protective" to "a lot protective".

4. ENSR's presentation of risks/hazards, **which excludes the actual sites**, would lead one to believe a "No Further Action" would be appropriate Even institutional controls to prevent digging into the actual waste pits would not be warranted. These conclusions are not supported by field observations, other available data, and general knowledge of the sites.

5. For an approvable document, ENSR must incorporate the results of the "Construction Worker/Fill Area: Subsurface Waste" using the E&E data, into the entirety of the document. The results of the E&E data must be described and included with the other results presented in the main text of the HHRA (not buried in an appendix). The selection of COC's, associated risks, and hazards must be discussed. Qualitative discussions should be included to address the limitations of the site characterization and risk analysis due to the lack of waste analysis for drummed product, free product, waste soils, and some extremely toxic and/or reactive/corrosive/flammable chemicals

known or likely to be present such as phosphorous pentasulfide, flourosillic acid, and CWM. Additionally, the presence of NAPL and masses of tarry waste and their effects on the assumptions made in the HHRA (such as adherence factors, absorption rates, contaminant mobilities) must be discussed.